

WHAT IS CLAIMED IS:

1. A method of making siRNA, the method comprising the steps of:

recombinantly coexpressing a Dicer protein with an R2D2 protein to form a complex comprising the R2D2 protein and the Dicer protein, and

contacting the complex with a target double-stranded (ds) RNA comprising a predetermined sequence under conditions wherein the complex cleaves the dsRNA into siRNA.

2. A method according to claim 1, wherein the R2D2 protein is a *Drosophila* R2D2 protein and the Dicer protein is a *Drosophila* Dicer-2 protein.

3. A method according to claim 1, wherein the Dicer protein and the R2D2 protein are coexpressed using a baculovirus expression system in insect cells selected from the group consisting of S2, Sf9 and Hi5 cells.

4. A method according to claim 2, wherein the Dicer protein and the R2D2 protein are coexpressed using a baculovirus expression system in insect cells selected from the group consisting of S2, Sf9 and Hi5 cells.

5. A kit for making siRNA, comprising an instructional medium describing or reciting a method according to claim 1 copackaged with a reagent used in the method.